I CLAIM:

1. A conveyor motor for moving a conveyor plate to move objects along the conveyor plate, which comprises:

(a) a drive plate movably mounted, having a first side and a second side and connected to the conveyor plate;

(b) a first bellows mounted adjacent the first side of the drive plate and configured to contact the first side of the drive plate and having an inlet;

(c) a second bellows mounted adjacent the second side of the drive plate and configured to contact the second side of the drive plate and having an inlet; and

(d) a main control valve in fluid communication with the inlet of the first bellows and the inlet of the second bellows wherein the main control valve is configured such that a rate of inflation of the second bellows is greater than a rate of inflation of the first bellows.

2. The conveyor motor of Claim 1 wherein the first and second bellows are mounted such as to be coaxial.

3. The conveyor motor of Claim 1 wherein an end of the first bellows opposite the drive plate is mounted to a first end plate, wherein an end of the second bellows opposite the drive plate is mounted to a second end plate, wherein a first pair of guide rods having first and second ends are fixably mounted adjacent the first ends to the first end plate and are fixably mounted adjacent the second ends to the second end plate and wherein the drive plate is movably mounted on the first pair of guide rods spaced between the first and second end plates.

4. The conveyor motor of Claim 3 wherein a second pair of guide rods are provided spaced apart and parallel to the first pair of guide rods, wherein the first and second end plates are fixably mounted on the second pair of guide rods and wherein the drive plate is movably mounted on the second pair of guide rods.

5. The conveyor motor of Claim 3 wherein a follower plate is slidably mounted on the first pair of guide rods spaced adjacent the second end plate on a side opposite the second bellows.

6. The conveyor of Claim 1 wherein a first valve is in fluid communication with the inlet of the first bellows and controls a flow of fluid into and out of the first bellows.

7. The conveyor of Claim 1 wherein a second valve is in fluid communication with the inlet of the second bellows and controls a flow of fluid into and out of the second bellows.

8. The conveyor of Claim 1 wherein a first limit switch is mounted adjacent the first side of the drive plate, wherein a second limit switch is mounted adjacent the second side of the drive plate and wherein the first and second limit switches are connected to the main control valve.

9. The conveyor of Claim 8 wherein the first and second limit switches are pneumatic switches which are in fluid communication with the main control valve.

10. The conveyor of Claim 8 wherein a flow control valve is connected between at least one of the first or second limit switches and the main control valve and wherein the flow control valve is configured to adjust a signal between one of the first and second limit switches and the main control valve to control a time of activation of the main control valve.

11. The conveyor of Claim 10 wherein the flow control valve is configured to delay the time of activation of the main control valve.

12. The conveyor of Claim 8 wherein a first flow valve is connected between the first limit switch and the main control valve and a second flow valve is connected between the second limit switch and the main control valve, wherein a bi-directional switch is positioned between the first and second flow valves and the main control valve and wherein the bi-directional switch is configured to select one of the first or second limit switches depending on a direction of flow of the objects along the conveyor plate.

13. The conveyor of Claim 8 wherein the drive plate is provided with a first trigger rod extending outward from the first side of the drive plate adjacent the first limit switch and a second trigger rod extending outward from the second side of the drive plate adjacent the second limit switch.

14. The conveyor motor of Claim 1 wherein the first and second bellows are air bellows.

15. A conveyor for moving objects, which comprises:

(a) a housing;

(b) a drive plate having a first side and a second side and movably mounted in the housing;

(c) a first bellows mounted in the housing adjacent the first side of the drive plate and configured to contact the first side of the drive plate and having an inlet;

(d) a second bellows mounted in the housing adjacent the second side of the drive plate and configured to contact the second side of the drive plate and having an inlet; and

(e) a main control valve in fluid communication with the inlet of the first bellows and the inlet of the second bellows wherein the main valve is configured such that a rate of inflation of the second bellows is greater than a rate of inflation of the first bellows.

16. The conveyor of Claim 15 wherein the first and second bellows are mounted such as to be coaxial.

17. The conveyor of Claim 15 wherein an end of the first bellows opposite the drive plate is mounted to a first end plate and wherein an end of the second bellows opposite the drive plate is mounted to a second end plate.

18. The conveyor of Claim 17 wherein a first pair of guide rods having first and second ends are fixably mounted adjacent the first ends to the first end plate and are fixably mounted adjacent the second ends to the second end plate and wherein the drive plate is movably mounted on the first pair of guide rods spaced between the first and second end plates.

19. The conveyor of Claim 18 wherein a second pair of guide rods having first and second ends are fixably mounted adjacent the first ends to the first end plate and are fixably mounted adjacent the second ends to the second end plate wherein the drive plate is movably mounted on the second pair of guide rods and wherein the second pair of guide rods are spaced apart from and parallel to the first pair of guide rods.

20. The conveyor of Claim 15 wherein a conveyor plate is mounted on an end of the drive plate.

21. The conveyor of Claim 15 wherein a first valve is in fluid communication with the inlet of the first bellows and controls a flow of fluid into and out of the first bellows.

22. The conveyor of Claim 15 wherein a second valve is in fluid communication with the inlet of the second bellows and controls a flow of fluid into and out of the second bellows.

23. The conveyor of Claim 15 wherein a first limit switch is mounted adjacent the first side of the drive plate, wherein a second limit switch is mounted adjacent the second side of the drive plate and wherein the first and second limit switches are connected to the main control valve.

24. The conveyor of Claim 23 wherein the first and second limit switches are pneumatic switches which are in fluid communication with the main control valve.

25. The conveyor of Claim 23 wherein a flow control valve is connected between at least one of the first or second limit switches and the main control valve and wherein the flow control valve is configured to adjust a signal between one of the first and second limit switches and the main control valve to control a time of activation of the main control valve.

26. The conveyor of Claim 25 wherein the flow control valve is configured to delay the time of activation of the main control valve.

27. The conveyor of Claim 23 wherein a first flow valve is connected between the first limit switch and the main control valve and a second flow valve is connected between the second limit switch and the main control valve, wherein a bi-directional switch is positioned between the first and second flow valves and the main control valve and wherein the bi-directional switch is configured to select one of the first or second limit switches depending on a direction of movement of the objects.

28. The conveyor of Claim 23 wherein the drive plate is provided with a first trigger rod extending outward from the first side of the drive plate adjacent the first limit switch and a second trigger rod extending outward from the second side of the drive plate adjacent the second limit switch.

29. The conveyor of Claim 15 wherein the housing has a bottom wall, a first and second end wall and a first and second side wall forming an inner chamber and wherein the drive plate, first and second bellows and main control valve are mounted in the inner chamber of the housing.

30. The conveyor of Claim 29 wherein a conveyor plate is mounted on an end of the drive plate and forms a top wall of the housing.

31. The conveyor of Claim 30 wherein a crossbar is mounted on the conveyor plate and wherein a conveyor tray for holding the objects is mounted on the crossbar.

32. A method for moving objects, which comprises:

(a) providing a conveyor including a conveyor motor having a drive plate with a first and second side and a conveyor plate connected to the drive plate; a first bellows adjacent to and configured to contact the first side of the drive plate and having an inlet; a second bellows adjacent to and configured to contact the second side of the drive plate, and having an inlet; and a main control valve in fluid communication with the inlet of the first bellows and the inlet of the second bellows;

(b) providing a fluid source;

(c) connecting the fluid source to the main control valve;

(d) activating the main control valve such

that fluid flows from the fluid source into the inlet of the first bellows such that the first bellows inflates at a predetermined rate of inflation of the first bellows wherein as the first bellows inflates the first bellows contacts the drive plate and moves the drive plate toward the second bellows;

(e) activating the main control valve such that the fluid stops flowing to the first bellows and such that fluid flows from the fluid source into the inlet of the second bellows such that the second bellows inflates at a predetermined rate of inflation wherein as the second bellows inflates, the second bellows contacts the drive plate and moves the drive plate toward the first bellows such that the first bellows deflates wherein the predetermined rate of inflation of the second bellows is greater than the predetermined rate of inflation of the first bellows;

(f) activating the main control valve such that the fluid stops flowing to the second bellows and such that fluid flows to the first bellows such that the first bellows is inflated at the predetermined rate of inflation of the first bellows and wherein as the drive plate moves toward the second bellows, the second bellows deflates; and

(g) placing the objects on the conveyor plate and repeating steps (e) and (f) to move the objects along the conveyor plate.

33. The method of Claim 32 wherein in step (e) stoppage of the flow of fluid to the first bellows and initiation of the flow of fluid to the second bellows occur simultaneously.

34. The method of Claim 32 wherein in step (f) stoppage of the flow of fluid to the second bellows occurs prior to initiation of the flow of fluid to the first bellows.

35. The method of Claim 32 wherein in steps (d) and (f) flow of fluid from the fluid source to the inlet of the first bellows gradually increases from no flow to full flow.

36. The method of Claim 32 wherein first and second limit switches are provided and are connected to the main control valve, wherein in steps (d), (e), (f) and (g) the main control valve is activated by one of the limit switches.

37. The method of Claim 36 wherein the first and second limit switches are pneumatic switches and wherein in step (c) the fluid source is connected to the limit switches.

38. The method of Claim 36 wherein a flow control valve is positioned between the second limit switch and the main control valve and wherein in step (f) the flow control valve controls a speed at which the main control valve is activated.

39. The method of Claim 36 wherein a flow control valve is positioned between the second limit switch and the main control valve and wherein in step (f) the flow control valve controls the predetermined rate of inflation of the first bellows.

40. The method of Claim 36 wherein a first flow valve is connected between the first limit switch and the main control valve and a second flow valve is connected between the second limit switch and the main control valve, wherein a bi-directional switch is positioned between the first and second flow valves and the main control valve and wherein the bi-directional switch is configured to select one of the first or second flow valves depending on a direction of flow of the objects along the conveyor plate wherein prior to step (d) the bi-directional switch is activated such that in steps (d), (e) and (f) the predetermined rate of inflation of the first bellows and the predetermined rate of inflation of the second bellows are adjusted depending on which of the first or second flow valves is selected.